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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/798,305	03/12/2004	Takahiro Kume	742158-9	5795

25570 7590 08/08/2008  
ROBERT'S MLOTKOWSKI SAFRAN & COLE, P.C.  
Intellectual Property Department  
P.O. Box 10064  
MCLEAN, VA 22102-8064

EXAMINER
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CHANG, VICTOR S

ART UNIT	PAPER NUMBER
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1794

NOTIFICATION DATE	DELIVERY MODE
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08/08/2008

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

lgallaugh@rmsclaw.com  
dbeltran@rmsclaw.com

### Office Action Summary

**Application No.**

10/798,305

**Applicant(s)**

KUME ET AL.

**Examiner**

Victor S. Chang

**Art Unit**

1794

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 27 April 2008 and 03 April 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) 4-8, 10-21, 24 and 25 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 9 and 21-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB08)
- Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Introduction***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 4/3/2008 has been entered.
2. Applicants' amendments and remarks have been entered. Claim 1 has been amended. New claims 24 and 25 have been entered. Claims 1-3, 9 and 21-25 are pending.
3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

### ***Election/Restrictions***

4. Applicants' election without traverse of the species illustrated in Figure 6 and defined in claims 1, 2, 3, 9 and 22 in the reply filed on 5/27/2008 is acknowledged. Claims 1, 2, 3, 9 and 21-23 are active. Claims 4-8, 10-21, 24 and 25 are nonelected and withdrawn.

### ***Rejections Based on Prior Art***

5. Claims 1-3, 9 and 21-23 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Prasad [US 6913517].

Prasad's invention relates to polishing pads for chemical-mechanical polishing. The polishing pad comprises porous foam having a uniform pore size distribution [col. 1, ll. 11-13].

The porous foam comprises open cells (holes connecting cells) and about 5% or more closed cells [col. 5, ll. 21-24]. Fig. 3 is a scanning electron microscopy (SEM) image of a cross-section of a porous foam sheet. Fig. 15 is a SEM image of a solid thermoplastic polyurethane sheet at a greater magnification. Fig. 1 is a SEM image shows that the porous foam has a surface layer of smaller cell sizes. Fig. 8b shows a silica mapping image of a microporous foam polishing pad with the extent of penetration of the silica abrasive through the thickness after polishing 20 silicon dioxide blanket wafers (evidencing a network of continuous holes between foam cells). Fig. 7 shows the SEMs of the top surface of the porous foam sheets having a grooved macrotecture.

For claim 1, Prasad's SEMs illustrate the various dimensional relationships between the components of the claimed invention. Regarding newly added product-by-process limitation "manufactured by a wet film forming process", since the process limitation has not been shown on the record to produce a patentably distinct article, the formed articles are rendered *prima facie* obvious, and this limitation at the present time has not been given patentable weight. Regarding the newly added limitation "essentially all of said foam cells formed in the polishing layer are interconnected by a network of continuous holes between said foam cells", since Prasad teaches an open celled foam, the cells are inherently interconnected by a network of continuous holes between said foam cells, as further evidenced in Fig. 8b that the silica abrasive particles penetrate through the thickness after polishing 20 silicon dioxide blanket wafers, whereas Fig. 8c illustrates that the conventional closed cell foam lacks connecting channel through the holes, the silica penetration through the foam thickness is absent.

***Response to Arguments***

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6. Applicants argue at Remarks page 7 that

“The Prasad '517 patent neither discloses nor suggests the invention defined in amended claim 1, for three reasons. First, claim 1 specifically recites a polymeric foam sheet "manufactured by a wet film forming process.””

However, since the process limitation has not been shown on the record to produce a patentably distinct article, the formed articles are rendered *prima facie* obvious, and this limitation at the present time has not been given patentable weight.

Applicants argue at page 8 that

“While the Prasad foam can contain open cells, Prasad expressly teaches that at least about "5% or more””

However, absence any specification amount of closed cell in the claim language, the rejection is maintained, because Prasad's 5% of closed cells is interpreted as reading on the term “essentially all of”.

Finally, applicants arguments over claims 24 and 25 are moot, because they are withdrawn.

### ***Conclusion***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Victor S. Chang whose telephone number is 571-272-1474. The examiner can normally be reached on 7:00 am - 5:00 pm, Tuesday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on 571-272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Victor S Chang/  
Primary Examiner, Art Unit 1794